

## **ABSTRACT OF THE DISCLOSURE**

A method is described for the relative quantification of the methylation of cytosine bases in DNA samples, wherein the following method steps are conducted:

- a) a genomic DNA sample is chemically converted with a reagent, wherein 5-methylcytosine and cytosine react differently and show a different base pairing behavior in the DNA duplex after the reaction;
- b) the DNA sample is amplified, whereby a fluorescently labeled dCTP or dGTP derivative is added;
- c) the amplified products are separated spatially from each other; and
- d) the fluorescence of the separated amplified products is measured quantitatively.